R E P O R T R E S U M E S

ED 020 543 CG 002 120

DEVELOPMENTAL LEVEL AND VOCATIONAL INTERESTS (SVIB).

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EDRS PRICE MF-$0.25 HC-$0.72 16P.

DESCRIPTORS- *DEVELOPMENTAL TASKS, *VOCATIONAL DEVELOPMENT, *VOCATIONAL INTERESTS, INTEREST SCALES, INTEREST TESTS, *PERSONALITY ASSESSMENT, STRONG VOCATIONAL INTEREST BLANK

DEVELOPMENTAL TASKS OF IMPLEMENTING A VOCATIONAL ROLE IN LATE ADOLESCENCE WERE UNRELATED TO A DEVELOPMENTAL SCALE (DS) FOR COLLEGE FRESHMENT (N=107 MALES). THE DEVELOPMENTAL TASKS CORRELATED SIGNIFICANTLY WITH SOME JACKSON PERSONALITY RESEARCH FORM NEEDS (PRF)--(1) INTEREST PATTERNING CORRELATED WITH UNDERSTANDING (.31) AND AFFILIATION (-.22), WHEREAS (2) INTEREST CONGRUENCE, AND EDUCATIONAL PLAN AGREEING WITH INTERESTS, CORRELATED ALSO WITH UNDERSTANDING (.34) AND AFFILIATION (-.35), AND ADDITIONALLY WITH EXHIBITION (-.21), PLAY (-.32), INTEREST PATTERNING (.31), CLARITY OF INTERESTS (.25), PLUS COLLEGE ENTRANCE EXAMINATION BOARDS-VERBAL (.22). SOME SUPPORT WAS FOUND FOR DS RELATED TO DEVELOPMENTAL SKILLS. DS CORRELATED SIGNIFICANTLY WITH MINNESOTA MULTIPHASIC PERSONALITY INVENTORY EGO-STRENGTH (-.57), AGGRESSION (.38), AFFILIATION (-.23), SENTIENCE (.32), AND SOCIAL DESIRABILITY (-.38), BUT NOT WITH INTEREST DEVELOPMENT. (AUTHOR)

ED020543

ABSTRACT

Developmental level and vocational interests (SVIB)[1]

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Developmental tasks of implementing a vocational role in late adolescence were unrelated to a Developmental Scale (Ds) for college freshmen (N=107 males). The developmental tasks correlated significantly with some Jackson PRF needs: Interest Patterning correlated with Understanding (.31) and Affiliation (-.22); whereas Interest Congruence, an educational plan agreeing with interests, correlated also with Understanding (.34) and Affiliation (-.35), and additionally with Exhibition (-.21), Play (-.32), Interest Patterning (.31), Clarity of Interests (.25), plus CEEB-Verbal (.22). Some support was found for Ds related to developmental skills--Ds correlated significantly with MMPI Ego-Strength (-.57), Aggression (.38), Affiliation (-.23), Sentience (.32), plus Social Desirability (-.38)--but not interest development.

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CG 002 120

Developmental level and vocational interests (SVIB)[1]

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Two important developmental tasks during late adolescence are acquiring vocational interests and implementing a vocational role (Blocher, 1966). Some adolescents during this stage do not acquire clear patterns of interests. For example, Darley and Hagenah (1955) and Korn and Parker (1962) respectively found that 19.3% and 41% of the students who entered college lacked clear interest patterns. Some college students are unable, also, to propose majors congruent with their interests; some even need counseling in order to decide. What differentiates individuals as to their competencies in coping with vocationally related tasks has remained unclear in personality theory.

Strong (1943) attempted to measure the maturation or the developmental level of interests using a scale he constructed which differentiated 15 year old males from 23-27 year old males on interest items in the SVIB. It was assumed that the lower the scale score, or greater similarity to 15 year olds, the greater the likelihood that one's interests were not mature. The scale was called Interest Maturity (IM). Data had indicated that interests though tending to form patterns between 15 to 18 tended to become more defined during later stages of development (Carter, 1944; Strong, 1943). Subsequently IM was found more related to age than interest maturation (Stordahl, 1954) and more related to a specific interest pattern (Darley & Hagenah, 1955), with the result that the IM scale was discontinued as a measure of maturation or developmental level of interests on the newly revised male SVIB (Campbell, 1966).

The developmental level of interests was seen by Crites (1960) as related to ego-functions. Ego-functions were described as one's ability to organize the present and project one's self into the future so that clear interest

patterning should be found in those with stronger ego-functions. However, ego-functions, as measured by the MMPI Ego-Strength scale (Barron, 1953), were related to interest patterning only for those male counselees 21 or older (r=.45, N=31).

The current study attempted to clarify the meaning of interest patterning and implementing a vocational role in terms of the developmental level of one's personality. A Developmental Scale (Sage, 1968) constructed from personality change between the extremes of the late adolescent developmental period (ages 15 and 18) was construed as a construct to clarify the meaning of these developmental tasks. "Interest patterning" was defined as having one or more primaries on the SVIB (Darley & Hagenah, 1955; Korn & Parker, 1962), and "implementing a vocational role" as proposing an educational plan congruent with one's interests on the SVIB. In addition, the relationship of manifest needs to the Developmental Scale (Ds) and interest measurement constructs was explored.

The general hypotheses were: (a) Developmental level is associated with interest patterning; (b) developmental level is associated with implementing a vocational role congruent with one's interests; (c) developmental level is associated with ego-functions; (d) developmental level is associated with manifest needs; and (e) interest patterning is associated with manifest needs.

METHODS and PROCEDURES

Ss. The Ss were 107 males who declared intent not to take physics during the first two years of college. Their CEEB-Verbal mean was 629.68 with a standard deviation of 74.06. The prior male freshmen class had a mean CEEB-Verbal of 620.98 with a standard deviation of 64.31 (N=490). Tilton's test of

the percent overlap (Tilton, 1937) indicated that the two verbal distributions had 94% of their scores in common. The most frequently occurring interest primaries as seen in TABLE 1 were Group X: Verbal-Linguistic 42.05% and Group VI: Aesthetic-Cultural 33.64%.

Insert TABLE 1 about here

Constructs and Measurement. The constructs were:

a. Developmental level which was defined as the degree of maturation in personality during the late adolescent developmental period (ages 15-19). A Developmental Scale (Ds) which indicates the relative similarity/dissimilarity to 15 year olds as compared with 18 year olds was the measure of developmental level (Sage, 1968). Ds consists of 51 true-false items; and was constructed from personality items that reliably changed between the ninth grade and entrance into college on a longitudinal sample of 148 males. The personality items were derived from the Minnesota Counseling Inventory (Berdie & Layton, 1957). Ds was scored in the ninth grade direction with high scores being considered developmentally less mature. Ds was assumed independent of IM.

b. Interest patterning which was defined in two ways: By Clarity of Interests (CI) where an individual has one or more Primaries on the newly revised SVIB (Campbell, 1966); and by Interest Patterning (IP) which was a simple count of As and B+s on the SVIB profile. IP was considered comparable to CI yet more amenable to statistical treatment than CI; and Crites (1960) found that IP correlated with CI .75. IP might better be called interest breadth. For CI a Primary

consisted of having a majority of As and B+s in one or more of nine groups on the newly revised male SVIB. The single scale groups, VII. C.P.A. Owner and XI. President of a Manufacturing Concern were combined with group X. Verbal-Linguistic and group IX. Business Contact respectively. Two new groups appear in this study on Primaries, group III. Technical Supervision and group VI. Aesthetic-Cultural (see Darley & Hagenah, 1955; Korn & Parker, 1962). The definition of a Primary was derived from Korn and Parker (1962) which provided a more objective definition than the earlier method suggested by Darley and Hagenah (1955).

c. Interest Congruence (IC) which was measured by agreement between the SVIB profile and the proposed major. A person may have no Primaries yet propose a major congruent with his measured interests, since the latter relates to individual vocational scales.

d. Ego-function which were defined briefly as the ability to realistically interact with the external world as measured by the MMPI Ego-Strength (Es) scale (Barron, 1953). MMPI-Es was included to cross-validate the finding by Crites (1960) that it was unrelated to IP for persons under 21 years of age as well as its convergence with Ds.

e. Manifest needs which was defined in the tradition of Murray (1938) as measured by the Jackson Personality Research Form (PRF) Form AA which consists of 20 need scales plus scales measuring Social Desirability and Infrequency of response style (Jackson, 1967).

Procedures. All variables were intercorrelated and means and standard deviations were computed. The frequency of occurrence of primaries and range of number of primaries in the sample were computed.

The following hypotheses were unsupported (see TABLE 2): Developmental level was not associated with either interest patterning or implementing a vocational role congruent with one's interests; the Developmental Scale (Ds) was not significantly correlated with either Interest Patterning (IP) where r=.03, or Clarity of Interests (CI) where r=.09, or with Interest Congruence (CI) where r=-.06.

The following hypotheses were supported (see TABLE 2): Developmental level was associated with ego-functions; Ds correlated significantly with MMPI-Es (-.57). Developmental level was associated with manifest needs; Ds correlated significantly with Aggression (.38), Sentience (.32), Social Recognition (.28), Succorance (.26), Affiliation (-.23) and Defendence (.20). Although no prediction was made for Ds as related to Social Desirability, they were significantly correlated (-.38). Interest Patterning was associated with needs only as measured by IP, not CI. IP was significantly correlated only with Understanding (.31) and Affiliation (-.22). IP was not isomorphic with CI (r=.36) even for practical purposes as Crites (1960) had suggested.

Further findings not predicted for the interest measurement constructs were (see TABLE 2): Interest Congruence (IC) correlated significantly with IP (.31), CI (.25) and CEEB-Verbal (.22). Interest Maturity (IM) was not significantly correlated with any of the other interest measurement constructs IP, CI, or IC. Some support was found for the Darley-Hagenah hypothesis that IM measures maturity, since the following needs correlated significantly with IM: On the positive side Nurturance (.47), Dominance (.37), Achievement (.36), Sentience (.36), Endurance (.30), Understanding (.25) and Affiliation (.23), but on the negative side Exhibition (.25), Abasement (.24) and Autonomy (-.29). Needs were more consistently and highly related to IM than any other non-need

variable.

In addition the following was found for ego-functions and verbal ability (see TABLE 2): The MMPI-Es correlated significantly with Dominance (.33), Affiliation (.29), Play (.21), Succorance (-.23), Sentience (-.29) and Social Desirability (.38). CEEB-Verbal correlated significantly with IC (.22) and four needs--Affiliation (-.34), Succorance (-.26), Autonomy (.25) and Understanding (.20).

In TABLE 3 are the means and standard deviations for the variables in this study.

Insert TABLE 3 about here

In TABLE 4 is a summary of significant relationships of the 20 PRF needs to the other variables with the median, range and frequency of correlation indicated. Only tentative conclusions can be drawn from these low-order correlations.

Insert TABLE 4 about here

In TABLE 1 and TABLE 5 are the frequency of types of Primaries and the range of Primaries respectively. In general these data are not comparable to prior studies on interest patterning, since sciences oriented persons were excluded. A comparison can be made by consulting Korn and Parker's (1962) summary of three studies on more general student populations. Only 24.29% (N=26) had no primaries whereas 56.07% (N=60) proposed majors congruent with their interest profiles.

Insert TABLE 5 about here

DISCUSSION

Developmental tasks pertinent to implementing a vocational role were unrelated to the Developmental Scale (Ds). It was not clear from the results whether the theory of the development of interests during late adolescence was adequate, or whether the measure Ds was an adequate test of this theory (Cronbach & Meehl, 1955); the latter seems likely. Earlier, IM met with somewhat similar results (Stordahl, 1954); and IM was similarly unrelated to implementing a vocational role in this study.

Developmental tasks pertinent to implementing a vocational role were related to some needs. Those with clear interest patterning were somewhat more "reflective and rational" (Understanding, r=.31) and somewhat less socially oriented (Affiliation, r=-.22). Those who proposed an educational plan congruent with their interests were, also, somewhat more "reflective and rational" (Understanding, r=.34), less socially oriented (Affiliation, r=-.35), but in addition were somewhat more modest (Exhibition, r=-.21), somewhat less "pleasure seeking" (Play, r=-.32) as well as having a broader range of interests (Interest Patterning, r=.31; Clarity of Interests, r=.25); and were slightly more able (CEEB-Verbal, r=.22).

Developmental skills appeared related to Ds. Ds was related to ego-functions (MMPI-Es, r=-.57) and to a lesser degree, needs. In terms of needs persons with high scores on Ds might tentatively be described as "antagonistic" (Aggression, r=.38), less "friendly" (Affiliation, r=-.23), and more "aesthetic" (Sentience, r=.32). In addition Berdie[2] earlier found correlations with Ds ranging from .80 to .50 with such variables as "coping with reality," "emotional stability," "social relations" and "taking leadership roles in group situations." Ds appears promising as a measure of personality development during late adolescence, but not interest development.

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FOOTNOTES

[1] A paper presented at the meeting of the American Personnel and Guidance Association, Detroit, April 1968.

[2] Ralph F. Berdie, personal communication, April 1967.

TABLE 1

	Groups	Frequency of Primaries	Percent of Total Sample
I.	Biological Sciences	9	8.41
II.	Physical Sciences	5	4.67
III.	Technical Supervision	4	3.73
IV.	Technical and Skilled Trades	1	.93
V.	Social Service	20	18.69
VI.	Aesthetic-Cultural	36	33.64
VIII.	Business Detail	5	4.67
IX.	Business Contact	21	19.62
X.	Verbal-Linguistic	45	42.05
	Total	146	

TABLE 2

Correlation Matrix for Interest Measurement Constructs, MMPI Ego-Strength, the Developmental Scale with the Jackson PRF Manifest Needs (N=107)

	Es	Ds	IC	IP	CI	IM	CEEB-V
MMPI Ego-Strength (Es)	--						
Developmental Scale (Ds)	-.57**	--					
Interest Congruence (IC)	--	--	--				
Interest Patterning (IP)	--	--	.31**	--			
Clarity of Interests (CI)	--	--	.25**	.63**	--		
Interest Maturity (IM)	--	--	--	--	--	--	
CEEB-Verbal	--	--	.22	--	--	--	--
Affiliation	.29**	-.23*	-.35**	-.22*	--	.23*	-.34**
Order	--	--	--	--	--	--	--
Exhibition	--	--	-.21*	--	--	.25*	-.21*
Defendence	--	.20*	--	--	--	--	--
Impulsivity	--	--	--	--	--	--	--
Succorance	-.23*	.26**	--	--	--	--	-.26**
Sentience	-.29**	.32**	--	--	--	.36**	--
Dominance	.33**	--	--	--	--	.37**	--
Play	.21*	--	-.32**	--	--	--	--
Autonomy	--	--	--	--	--	-.29**	.25*
Understanding	--	--	.34**	.31**	--	.25*	.20*
Endurance	--	--	--	--	--	.30**	--
Aggression	--	.38**	--	--	--	--	--
Change	--	--	--	--	--	--	--
Social Recognition	--	.28**	--	--	--	--	--
Abasement	--	--	--	--	--	.24*	--
Cognitive Structure	--	--	--	--	--	--	--
Nurturance	--	--	--	--	--	.47**	--
Harmavoidance	--	--	--	--	--	--	--
Achievement	--	--	--	--	--	.36**	--
Social Desirability	.38*	-.38**	--	--	--	.22*	--

Note: Only significant correlations were reported: also, excluded were the intercorrelations for manifest needs.

* $p<.05$
** $p<.01$

TABLE 3

Means and Standard Deviations on Interest Measurement Constructs, MMPI-Es, Developmental Scale, CEEB-Verbal and Manifest Needs (N=107)

Variable	Mean	Standard Deviation
MMPI Ego-Strength	46.37	6.15
Developmental Scale	14.22	4.86
Interest Congruence	.57	.49
Interest Patterning	8.82	3.97
Clarity of Interests	.75	.43
Interest Maturity	50.57	6.14
CEEB-Verbal	629.68	74.05
Affiliation	14.57	3.67
Order	8.46	4.27
Exhibition	10.96	4.10
Defendence	8.63	2.85
Impulsivity	10.27	3.79
Succorance	8.19	3.31
Sentience	14.86	3.23
Dominance	10.71	4.51
Play	12.03	3.22
Autonomy	9.18	3.01
Understanding	13.02	3.22
Endurance	10.00	3.88
Aggression	7.54	3.16
Change	11.41	3.30
Social Recognition	11.01	4.14
Abasement	6.00	2.91
Cognitive Structure	9.53	3.98
Nurturance	12.06	3.05
Harmavoidance	7.87	3.56
Achievement	11.98	3.33
Social Desirability	15.51	2.72
Infrequency	.57	.90

TABLE 4

Summary of the Significant Associations between a possible 20 PRF Needs and the Developmental Scale, MMPI Ego-Strength, Interest Measurement Constructs and CEEB-Verbal

	Correlation Coefficients			PRF Needs	
Variable	Median	Range	Frequency	Positively Related	Negatively Related
Developmental Scale	.27	.20-.38	6	Aggression** Defendence* Sentience** Social Recognition** Succorance**	Affiliation*
MMPI Ego-Strength	.29	.21-.33	5	Affiliation** Dominance** Play*	Sentience** Succorance*
Interest Patterning	.27	.22-.31	2	Understanding**	Affiliation*
Interest Congruence	.33	.21-.35	4	Understanding**	Affiliation** Exhibition* Play**
Interest Maturity	.295	.23-.47	10	Abasement* Affiliation* Achievement** Dominance** Endurance** Exhibition* Nurturance** Sentience** Understanding*	Autonomy**
CEEB-Verbal	.25	.20-.34	5	Autonomy* Understanding*	Affiliation** Exhibition* Succorance**

Note. - Medians and ranges of correlations were given irrespective of sign to indicate degree of association.

* $p < .05$
** $p < .01$

TABLE 5

The Range of Occurrence of Primaries (N=107 males)

Number of Primaries	N	Percent of Total Primaries (N=81)	Percent of Total Sample (N=107)
0	26	--	24.29
1	30	37.03	28.03
2	33	40.74	30.84
3	15	18.51	14.01
4	2	2.46	1.86
5	1	1.23	.93